

1. (Amended) A pickup device of an apparatus for recording or reproducing information, by irradiation of a light beam, to and from a multi-layered recording medium having a plurality of recording layers laminated through spacer layers, the device comprising:

- ↳ an illumination optical system including an objective lens for focusing a light beam onto any of said recording layers of said multi-layered recording medium, and
- ↳ a detecting optical system including a photodetector for receiving and photoelectrically converting reflection light from said recording layer of said multi-layered recording medium through said objective lens; wherein said photodetector has a normalized detector size (B/β^2) of a size of $10 \mu\text{m}^2$ to $50 \mu\text{m}^2$, and

wherein the normalized detector size (B/β^2) is given by an equation of

$$B/\beta^2 = L^2 / (f_c/f_{OB})^2$$

wherein L denotes a size of one side of the photodetector, f_c denotes a focal distance of the detecting optical system and f_{OB} denotes a focal distance of the objective lens.